

## Appendix I: Use Case (Illustrative) Examples of IEA Support to Selected Stakeholders

### I-1 Introduction

This section provides the reader with more details in the form of Use Cases on stakeholder use of the IEA. The Use Case descriptions below are notional or illustrative. In some cases they represent present approaches to potential use of the IEA. In other cases they are “recommended” approaches for use of the IEA. As managers begin the process of interacting with the enterprise architecture team within the CIO as they improve their decision-making information and processes, it is anticipated that the value of the IEA will be better understood and recognized value exploited across the Office of the CIO.

The architectural data in the IEA, in conjunction with tools and analysis, can provide the necessary information to make decisions and provide specification of solutions that meet IE requirements. Many of the definitions of architectural information that were previously defined in are referenced in these Use Cases to assist the reader in understanding the type of information used in the Use Cases chosen. These Use Cases also imply that a fully populated I2R2 (containing both the IEA and outside related documentation) will assist the architect or user of the IEA extract the pertinent information to guide development of IE Solutions. It is anticipated that using the I2R2 to navigate through the available IE architectural information will provide a powerful of tool to support the needs of the Office of the CIO as well as the rest of the Department. A complementary tool, the I2R2, is currently under development and evolution to meet the needs of the IEA user community and is described at:

<https://www.intelink.gov/sites/dodieav2/framework/default.aspx> .

Please note the following terms when reading the Use cases:

- **“Primary Actor”** = Identifies the Actor who’s goal is being satisfied by this Use Case and has the primary interest in the outcome of this Use Case
- **“Stakeholders and Interests”** = Lists the various entities who may not directly interact with the Actors in the Use Cases but may have an interest in the outcome of the use case. Identifying stakeholders and interests often helps in discovering hidden requirements which are not readily apparent or mentioned directly by the users during discussions.
- **“Extensions”** = Extensions are branches from the main flow to handle special conditions. They also known as Alternate flows or Exception flows. For each extension reference the branching step number of the Main flow and the condition which must be true in order for this extension to be executed is described. It also highlights the high degree of integration present between various DoD CIO activities.

## I-2 Architecture Development Support

### I-2.1 Use Case: Identify and Develop Reference Architecture (RA) Description

#### **Description:**

A Solution Architect requests additional guidance/direction in order to deliver one or more interoperable enterprise solutions within the IE and address an operational issue, problem, or gap. The DoD EA governance body determines this guidance/direction should be in the form of a DoD-wide RA. The DoD EA governance body sets the basic purpose and scope of the RA and tasks an RA development team. The RA development team builds the RA in collaboration with Subject Matter Experts (SMEs) and other stakeholders. The DoD EA governance body then approves the RA for use across DoD and the RA is incorporated into the DoD IEA.

#### **Primary Actor**

Solution Architect

#### **Supporting Actors**

DoD EA governance body, RA development team

#### **Stakeholders and Interests**

1. DoD CIO – Has an interest in ensuring RA represents CIO’s vision for DoD IE, as described by DoD IEA, and effectively provides direction/guidance CIO wishes to give solution developers
2. DoD Enterprise Architect – Has an interest in ensuring RA is aligned with and based on DoD IEA and in incorporating RA into DoD IEA
3. RA Owner – Has an interest in ensuring the RA has the correct content and in providing subject matter expertise required to properly develop RA to level of detail needed to supply proper guidance/direction

#### **Pre-Conditions:**

Approved DoD IEA must exist and contain effective architecture descriptions for required IE capabilities addressing the problem.

#### **Post Conditions:**

##### Success end condition

RA provides technical guidance to solution developers, in form of strategic purpose, principles, technical positions, patterns, and vocabulary, allowing delivery of interoperable solutions to satisfy identified need.

##### Failure end condition:

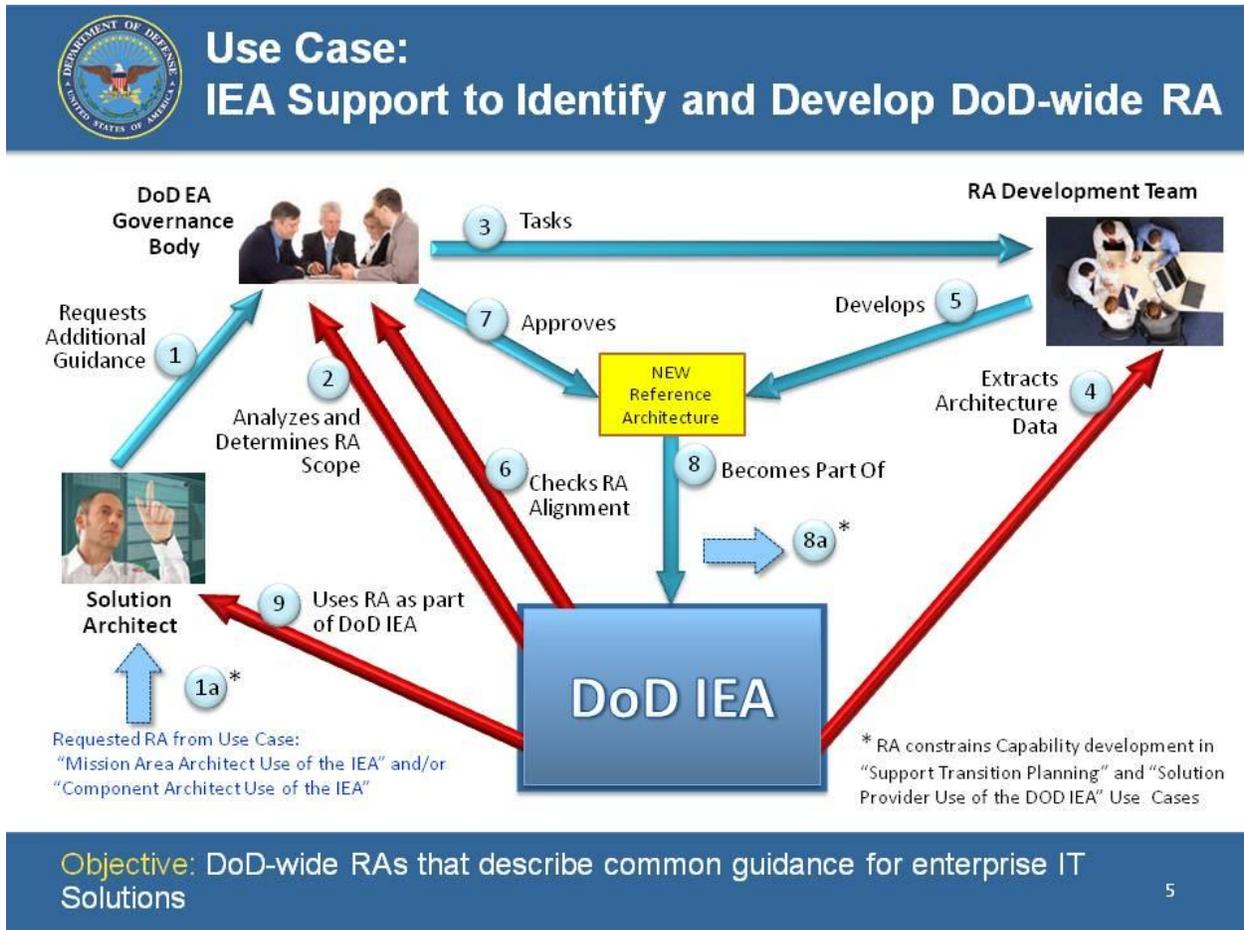
Solution developers do not receive required technical guidance at level of detail necessary to ensure interoperable solution implementation. Identified operational issue, problem, or gap is not effectively resolved.

Minimal Guarantee

RA will provide more detailed architecture descriptions of a specific set of capabilities that can be used in analyzing the DoD IEA in support of making investment decisions and determining solution development opportunities.

**Trigger**

Identified need for additional guidance from DoD CIO to enable interoperable solution development/ delivery in addressing a recognized operational issue, problem, or gap.



**Main Success Scenario**

1. Solution Architect requests additional guidance to ensure an interoperable IE solution can be implemented to address a recognized operational issue, problem, or gap.

2. DoD EA governance body analyzes DoD IEA to determine whether required direction/guidance should be in the form of an RA providing a template for the necessary solution and that such an RA does not already exist. DoD EA governance body establishes purpose for new RA and selects IE capabilities and associated activities, services, and rules from DoD IEA as scope and basis for new RA.
3. DoD EA governance body tasks team to develop RA.
4. RA development team extracts pertinent architecture data related to selected IE capabilities and associated activities, services, and rules from DoD IEA.
5. RA development team uses data from DoD IEA, supplemented with information provided by Subject Matter Experts (SMEs,) to develop strategic purpose, principles, technical positions, patterns, and vocabulary that form RA.
6. DoD EA governance body checks alignment of RA with DoD IEA.
7. DoD EA governance body approves RA and directs enterprise-wide compliance with it.
8. After approval, RA becomes part of DoD IEA.
9. Solution Architect uses RA as part of DoD IEA to constrain solution development.

**Extensions:**

**Step 1a.** The basis for a request to be issued by a Solution Architect may come from the Use Case: “Mission Area Architect Use of the IEA” and/or “Component Architect Use of the IEA”.

**Frequency:** Whenever a need is identified for additional technical direction/guidance from DoD CIO.

**Assumptions**

1. A chartered DoD EA governance body is in place to help adjudicate planning, technical, cost, budget, and schedule conflicts for the benefit of a robust and managed IE.
2. The DoD EA governance body is able to access and analyze architecture data in DoD IEA to determine need for RA and select required IE capabilities and associated activities, services, and rules as scope for RA.
3. Subject matter expertise exists to provide accurate content to level of detail necessary to develop effective RA.

**I-2.2 Use Case: Mission Area Architect Use of the IEA**

**Description**

A Solution Architect responds to the requirements provided by the Mission Area EA. As part of generating the requirements for a Solution, the Mission Area (MA) EA is influenced by the

relevant “touch points” between the MA EA and the IEA. In addition, the MA EA provides requirements for the IE to support the MA. This information is then passed to the Solution Architect who retrieves relevant Capabilities provided by the IE. The resultant Solution architecture may be submitted for IEA Compliance evaluation, if it requires interaction or interoperability with the IE supplied components.

### **Primary Actor**

The primary Actor is the Solution Architect supporting the Mission Area

### **Supporting Actors**

The Mission Area Enterprise Architect

### **Stakeholders and Interests**

- The Component Developers (e.g., DISA, Army Navy, etc.) have an interest in the Strategic Plan for Enterprise-wide common capabilities that the IE will supply in order to adequately address their planning needs to support DOD Missions
- The DoD EA governance body provides technical and operational guidance on the development and management of evolution of the IEA as well as Mission Area EAs and Component EAs

### **Pre-Conditions**

A Mission Area has determined the need for development of Mission Area services and/or systems that require a Solution Architect to develop a solution to a mission need. The Mission Area EA is the source of those requirements and an approved DoD IEA is in place to support the overall requirements effort that is required to engage with a Solution Architect.

### **Post Conditions**

#### Success end condition

The Solution Architect has generated a Solution Architecture that meets the needs of the Mission Area.

#### Failure end condition:

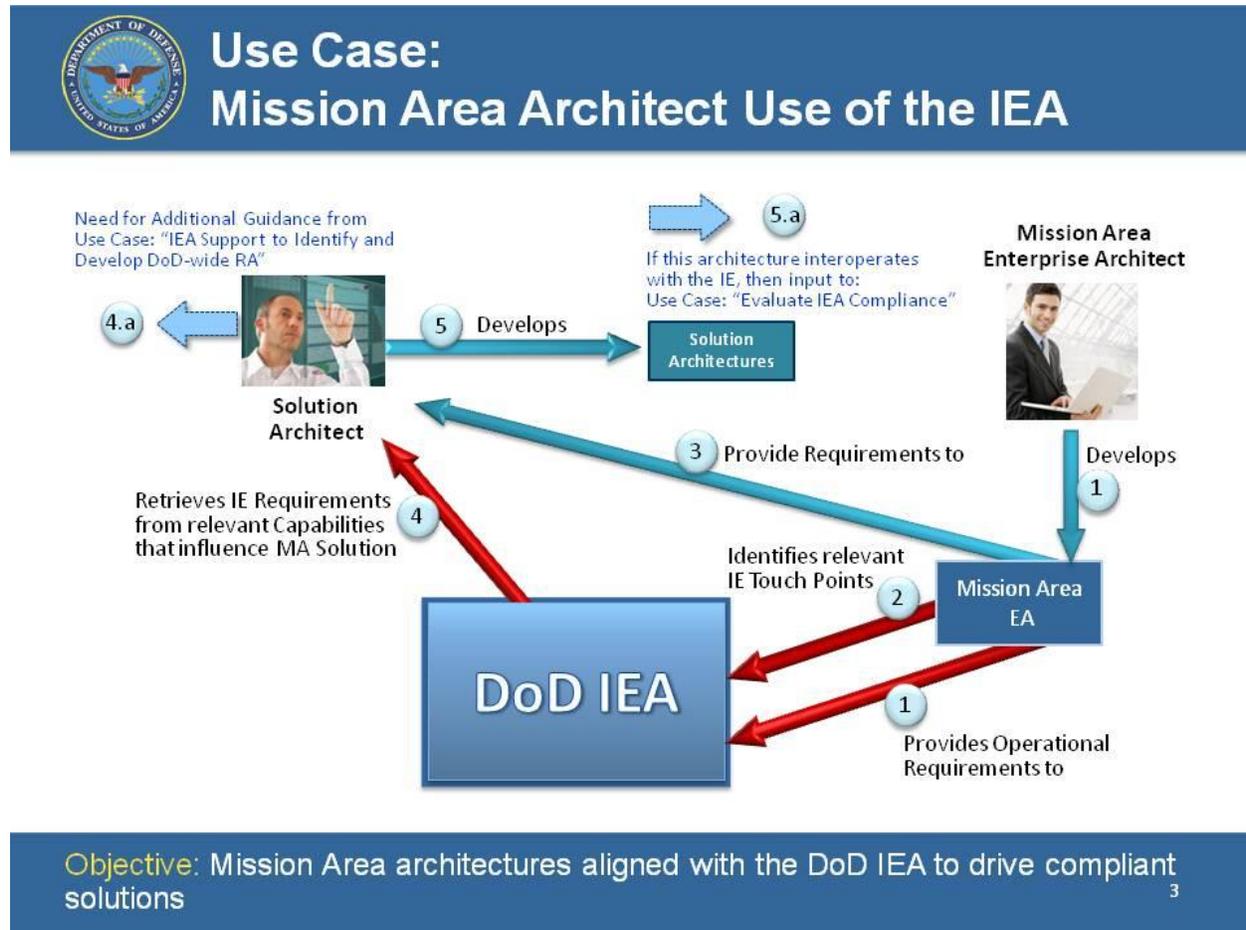
The Solution Architect has developed a Solution Architecture that is compliant with the MA EA but does not use the IEA appropriately to develop the Solution Architecture

#### Minimal Guarantee

An approved Solution Architecture will be compliant with the MA EA and if it uses components of the IE to interoperate or integrate with, it will need to be approved for DOD IEA Compliance in order to proceed with development.

## Trigger

The initiation of a request from the Mission Area to develop a Solution Architecture.



## Main Success Scenario

1. The Mission Area Enterprise Architect develops the Mission Area (MA) Enterprise Architecture (EA) and subsequently generates operational requirements for the IE. The IEA considers these in generation of the IEA, in order to meet the needs of the user community. The requirements from all Mission Areas and the DoD CIO goals are integrated into an enterprise-wide set of IE Requirements that make up the IEA. The IEA is the result of normalizing and consolidating the inputs from a group of Stakeholders that include the Components and Mission Areas.
2. The Mission Area Enterprise Architecture will evaluate the resultant IEA; identify the touch points between the Mission Area and the IE as described by the IEA in terms of Capabilities and relevant attributes. These touch points become a part of the Mission Area Requirements.
3. The Mission Area (MA) Enterprise Architecture (EA) provides the requirements for the Solution Architect to consider in development of a responsive Solution Architecture.

4. The Solution Architect will retrieve IE architecture information from the IEA pointed to by the MA EA to understand what IE requirements and architecture elements will constrain the Mission Area architecture being addressed.
5. The Solution Architect develops a Solution Architecture to address specific Mission Area needs.

### **Extensions**

**Step 4a.** As a result of evaluating requirements from the Mission Area EA, the Solution Architect, generates a request for additional guidance (due to lack of architectural details from the existing evaluation of IEA requirements) which is submitted to the Use Case: “IEA Support to Identify and Develop Enterprise-wide RA”.

**Step 5a.** The Solution Architecture may contain elements that are only unique to the MA. If they contain elements that leverage, must be shared with, or interoperate with the IE, the resultant Solution Architecture needs to comply with the IEA. If this is the case, the Solution Architecture must be submitted to the Use Case: “Evaluate IEA Compliance”.

### **Frequency:**

This Use Case will be executed for each request for a Solution to the Solution providing organization.

### **Assumptions:**

It is assumed that an approved DoD IEA is in place to support this scenario.

## **I-2.3 Use Case: Component Architect Use of the DOD IEA**

### **Description**

A Solution Architect responds to the requirements provided by the Component EA. The Component EA provides requirements for the IE to support the Component. As part of generating the requirements for a Solution, the Component EA is influenced by the relevant Reference Architecture(s) in the IEA. The resultant Solution architecture may be submitted for IEA Compliance evaluation, if it requires interaction or interoperation with the IE supplied components.

### **Primary Actor**

The primary Actor is the Solution Architect supporting the Component EA developer.

### **Supporting Actors**

The Component Enterprise Architect

### **Stakeholders and Interests**

- The DoD EA governance body provides technical and operational guidance on the development and management of evolution of the IEA as well as Mission Area EAs and Component EAs

### **Pre-Conditions**

A Component has determined the need for development of Component required services and/or systems that require a Solution Architect to develop a solution to a Component need. The Component EA is the source of those requirements and an approved DoD IEA is in place to support the overall requirements effort that is required to engage with a Solution Architect.

### **Post Conditions**

#### Success end condition

The Solution Architect has generated a Solution Architecture that meets the needs of the Component.

#### Failure end condition:

The Solution Architect has developed a Solution Architecture that is compliant with the Component EA but does not use the IEA appropriately to develop the Solution Architecture

#### Minimal Guarantee

An approved Solution Architecture will be compliant with the Component EA and if it uses components of the IE to interoperate or integrate with, it will need to be approved for DOD IEA Compliance in order to proceed with development.

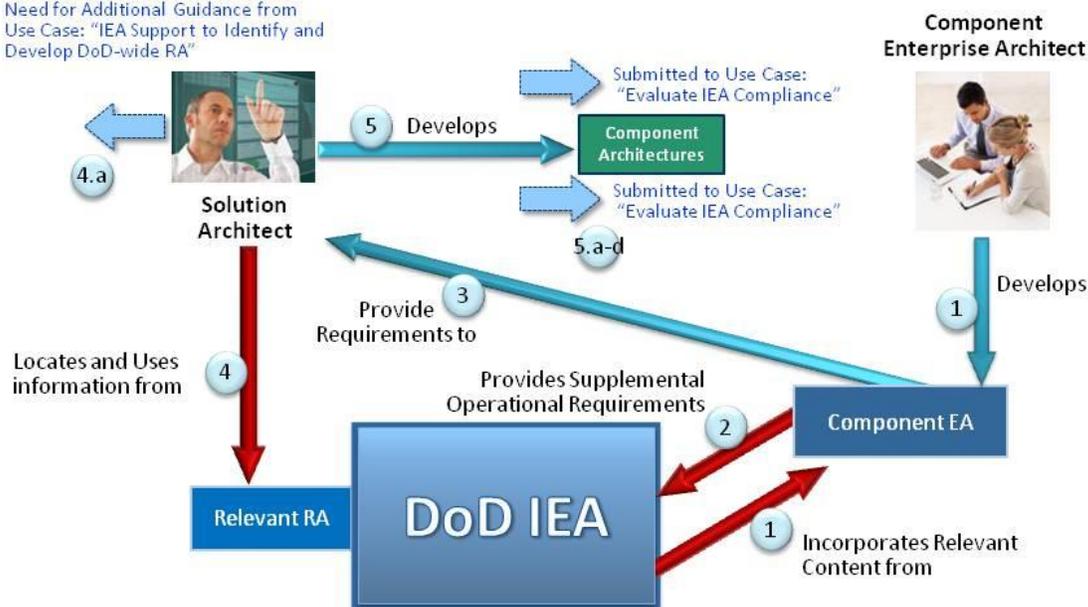
### **Trigger**

The initiation of a request from the Component to develop a Solution Architecture.



## Use Case: Component Architect Use of the DOD IEA

Need for Additional Guidance from Use Case: "IEA Support to Identify and Develop DoD-wide RA"



**Objective:** Component architectures that incorporate DoD IEA content to drive Compliant Solutions

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### Main Success Scenario

1. As part of the development of the Component Enterprise Architecture will incorporate relevant content from the IEA (i.e., capabilities and their attributes).
2. The Component Enterprise Architecture will provide their supplemental requirements for support from the IE not available from Step 1.
3. Based on the requirements analysis and architecture development in Steps 1-2 above, the Component Enterprise Architecture provides the requirements for the Solution Architect to consider in development of a Solution Architecture.
4. The Solution Architect reviews the IEA for any additional IE information (primarily RAs) not provided by the Component EA (for example RAs, Rules, activities, etc.). The Solution Architect describes the resultant Component Architecture. If it contains elements that leverage, must be shared with, or interoperate with the IE, the resultant Solution Architecture needs to comply with the IEA. If this is the case, the Solution Architecture must be submitted to the Use Case: "Evaluate IEA Compliance".
5. The Solution Architect develops a Solution Architecture to address specific Component needs. It is then submitted to the Use Case: "Evaluate IEA Compliance", if it supports integration or interoperation or reuse of the IEA.

## **Extensions:**

**4a.** As a result of evaluation of requirements from the Component EA by the Solution Architect, a need to develop a RA may be generated (due to lack of architectural details from the existing evaluation of IEA requirements) and would be submitted to the IE Governance Body (see Use Case: “IEA Support to Identify and Develop DoD-wide RA”).

**5.a** – An alternate Use Case involves the alternative to step 5 which would involve responding to a request for support to a Program or Initiative where the Program management specifies Program specific IE requirements that are given to a responsible architect for a contributing solution. The Component Solution Architect will evaluate impacts on existing solutions (i.e., Steps 1-5 of this use case) that have already been developed by the Component or that is already being developed for use by the IE (under previous designated work in that Component that may be a single Capability or a set of Capabilities that encompass a previously approved IE Reference Architecture).

**5.b** - The resultant IE related Component Solution architecture for the IE is then described by the Component Solution Architect.

**5.c** Component Solution architecture is documented for approval by the Program or Initiative management.

**5.d** The Program or Initiative management submits the Program Specific Solution Architecture for an IE Compliance Assessment ( see Use Case “DoD CIO IEA Compliance”).

## **Frequency:**

This Use Case will be executed for each request for a Solution to the Solution providing organization.

## **Assumptions:**

It is assumed that an approved DoD IEA is in place to support this scenario.

## **I-3 IT Investment Management Support**

### **I-3.1 Use Case: IEA Support to Transition Planning**

#### **Description**

A normal activity under managing an enterprise according to EA development best practices is the development a of transition plan. The IE needs a transition plan to understand how it plans to evolve from its present state to one or more future states. The IEA plays a crucial and integral role to the transition planning process. In this Use Case, the staff of the DoD CIO is tasked with development of the IEA Transition Plan. They make use of the IEA to determine the future vision and compare to various factors (IE Capability Gap Priorities, Budget Guidance, As-Is

Architecture, etc.) that will influence the speed of transition to that future vision. As inputs of ongoing priorities are examined and there are conflicts with the future vision, the DoD CIO may direct changes to the IE vision (and by association the IEA) so that there is agreed upon alignment between the request for the future transition and the transition plan that will be approved by the DoD CIO. The Transition Plan will be the basis for the Programs and Initiatives that will implement the plan. The Programs and Initiatives will also require approved Investment Plan in order to finalize the resources in the planning cycle to implement the Programs and Initiatives.

### **Primary Actor**

The primary Actor is the DoD CIO staff

### **Supporting Actors**

The Supporting Actor is the DoD CIO

### **Stakeholders and Interests**

- The DepSec Def has an interest in the outcome of this plan in that it supports the overall mission of the DOD.
- The Joint Staff has an interest in ensuring that the planned evolution of the IE fills the prioritized list of Capability gaps
- The Component Developers (e.g., DISA, Army Navy, etc.) have an interest in the Strategic Plan for Enterprise-wide common capabilities that the IE will supply in order to adequately address their planning needs to support DOD Components and Mission Areas
- The DoD EA governance body provides technical and operational guidance on the development and management of evolution of the IEA
- GAO has an interest in ensuring that the EA (in this case the IEA) is being used to plan how technology will be used and acquired by the DOD to support the needs of the IE over time. Although not directly interacting in this case, it has interests in evaluating compliance with Federal guidance on use of EA to drive strategic and technologic decisions for IT.
- OMB has an interest in ensuring guidelines for reporting on how EA is being used according to Federal approaches for EA development.

### **Pre-Conditions**

In order for this Use Case to be executed, the DoD CIO staff must understand that the planned Capabilities are outlined in the IEA CV-2 description documentation. The DoD CIO staff must be made aware of the any DoD CIO directed prioritization of IE capabilities that must be supported as the IE evolves. In order to evaluate the proposed content for Initiatives/Programs the DoD CIO staff must understand to what degree the present systems and services provide the future Capabilities desired (i.e., the As-Is Architecture). In order to conduct tradeoffs to

determine the scope of Initiatives/Programs over time, the target budgets established by the DOD CIO (also allocated from the DepSec Def) must be known

### **Post Conditions**

#### Success end condition

An approved Transition Plan (with their technical, cost, and schedule roadmap documented) aligned with the IEA.

#### Failure end condition:

A rejected Transition Plan that need to be reprioritized or de-scoped to fit within the desired guidelines of the DoD CIO and as described in the Strategic Plan.

#### Minimal Guarantee

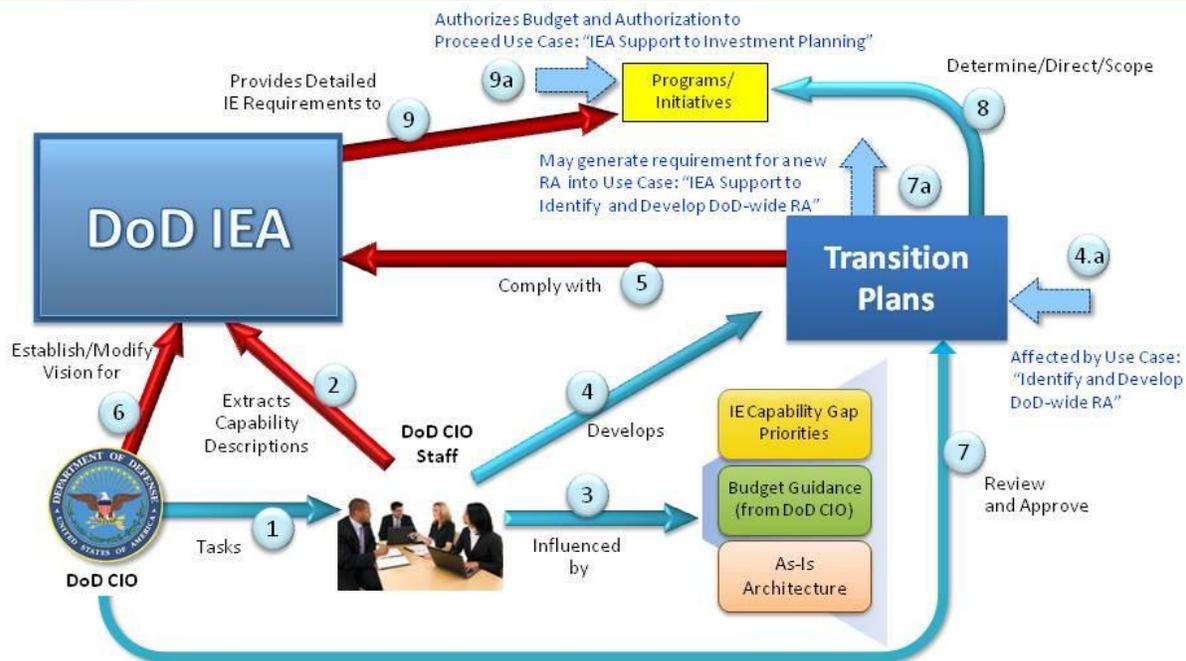
An approved DoD CIO approved Plan provides all stakeholders with sufficient guidance for detailed development and execution of the Initiatives/Programs specified in the Plan. If the IEA needs to be adjusted to better align with any changes in vision, it needs to be updated to align with the Transition Plan; the DOD CIO will direct changes to the Vision that, in turn, will precipitate an update to the IEA.

### **Trigger**

The initiation of planning for the evolution of the IE is accomplished in concert with the DoD POM cycle as directed by the DoD CIO.



# Use Case: IEA Support to Transition Planning



**Objective:** Approved Transition Plans directing Programs/Initiatives to achieve the Objective IE defined in the IEA 7

## Main Success Scenario

1. The DoD CIO staff is tasked with developing a Transition Plan for evolution and transition of the IE.
2. The DoD CIO staff extracts the baselined IE Capability requirements descriptions from the Capability descriptions in the IEA.
3. The DoD CIO staff will also consider other sources of information (e.g., IE Capability Gaps, Budget Guidance, and As-Is Architecture) that effect the plan beyond just the IEA.
4. The DoD CIO staff develops the Transition Plans for vetting by stakeholders
5. The DOD CIO staff evaluates the initial draft of the Plan for Initiatives and Programs for compliance with the IEA.
6. The DoD CIO staff negotiates with DoD CIO in conjunction with tradeoffs that need to be made against budget guidance cost and priorities aligned with capability development schedules. If alignment affects potential shift in future strategy and change in capability scope and content, the CIO may designate that modification or new capabilities (update to

CV-2) be considered and would authorize changes to the IEA. This would result in alignment of IEA with the planning scope and content.

7. The DoD CIO approves the negotiated transition plan for Initiatives and Programs to be executed during the stated planning time cycle
8. The Plan now provides a basis to determine, direct, and scope the Initiatives and/or Programs to evolve the IE. This will come in the form of detailed direction on requirements for the Initiatives and Programs, but not budget authorization (which comes from Use Case: “IEA Support to Investment Planning”).
9. Once the Scope and Content for the Program/Initiative has been determined, management can now extract the relevant IE requirements from the IEA to help specify the capability (or capabilities) to be developed by the Solution Providers.

#### **Extensions:**

**Step 4.a** - A constraint on development of a Capability to support transition plans will be the utilization of Reference Architectures (see Use Case: Identify and Develop DoD-wide RA) that may affect the scope or performance of Prioritized Capability Gaps and/or nature of Capability evolution.

**Step 7.a** – As part of Step 7, a need may arise to define a Reference Architecture to address the level of detail required to provide requirements for a Program or Initiative that might include multiple Capabilities in order to execute the Program/Initiative adequately. This information is fed to the Use Case: “Identify and Develop DoD-wide RA”.

**Step 9.a** – Two parts are needed to execute a Program or Initiative. First is the Transition Plan being approved and the necessary requirements alignment with the IEA is provided as requirements. Second is the approved budget and authorization to proceed that is authorized from the Use Case: “IEA Support to Investment Planning”.

#### **Frequency:**

This Use Case will be executed for each directed planning cycle as designated by the DoD CIO

#### **Assumptions:**

It is assumed that a chartered DoD EA governance body is in place to help adjudicate planning, technical, cost, budget, and schedule conflicts for the benefit of a robust and managed IE.

### **I-3.2 IEA Support to Investment Planning**

#### **Description**

The development of a Transition Plan is the first step toward approval by an IRB to implement such a plan. An IRB will evaluate a pending Transition Plan against a set of Investment criteria.

The IRB will task an investment team to evaluate the proposed Transition Plan. The Investment Analysis Team is made up of financial and other analysts, SME, and the IE Enterprise Architect as the interpreter of the IEA and its input to and constraint on the Investment criteria for the team. The Investment Analysis Team will assist the IRB in modify and adding to the Transition Plan in order to provide inputs in the IT Portfolio. Once the IRB approves the Investment Plan, the IT Portfolio management will ensure that that the Programs/Initiatives implement the Investment Plan (reflecting the approved Transition Plan) within the scope and resources approved by the IRB.

### **Primary Actor**

The primary Actor is the IRB

### **Supporting Actors**

The Supporting Actor is the Investment Analysis Team.

### **Stakeholders and Interests**

- The DoD EA governance body provides technical and operational guidance on the development and management of evolution of the IEA
- GAO has an interest in ensuring that the EA (in this case the IEA) is being developed as planned and that the performance of the Capabilities that are being acquired is being monitored, reported and plans adjusted to meet performance of the Capabilities desired. Although not directly interacting in this case, it has interests in evaluating compliance with Federal guidance on use of EA to drive strategic and technologic decisions for IT.
- The DoD CIO has an interest in ensuring that budget guidance and IE Vision provided to the CIO's staff is being implemented and followed in planning Programs and Initiatives.

### **Pre-Conditions**

There will be an approved Transition Plan for all DoD CIO Initiatives and Programs made available to the IRB.

### **Post Conditions**

#### Success end condition

Successful completion of an investment analysis in support of an IRB decision for an approved IT Portfolio. This will be used to guide Programs and Initiatives.

#### Failure end condition:

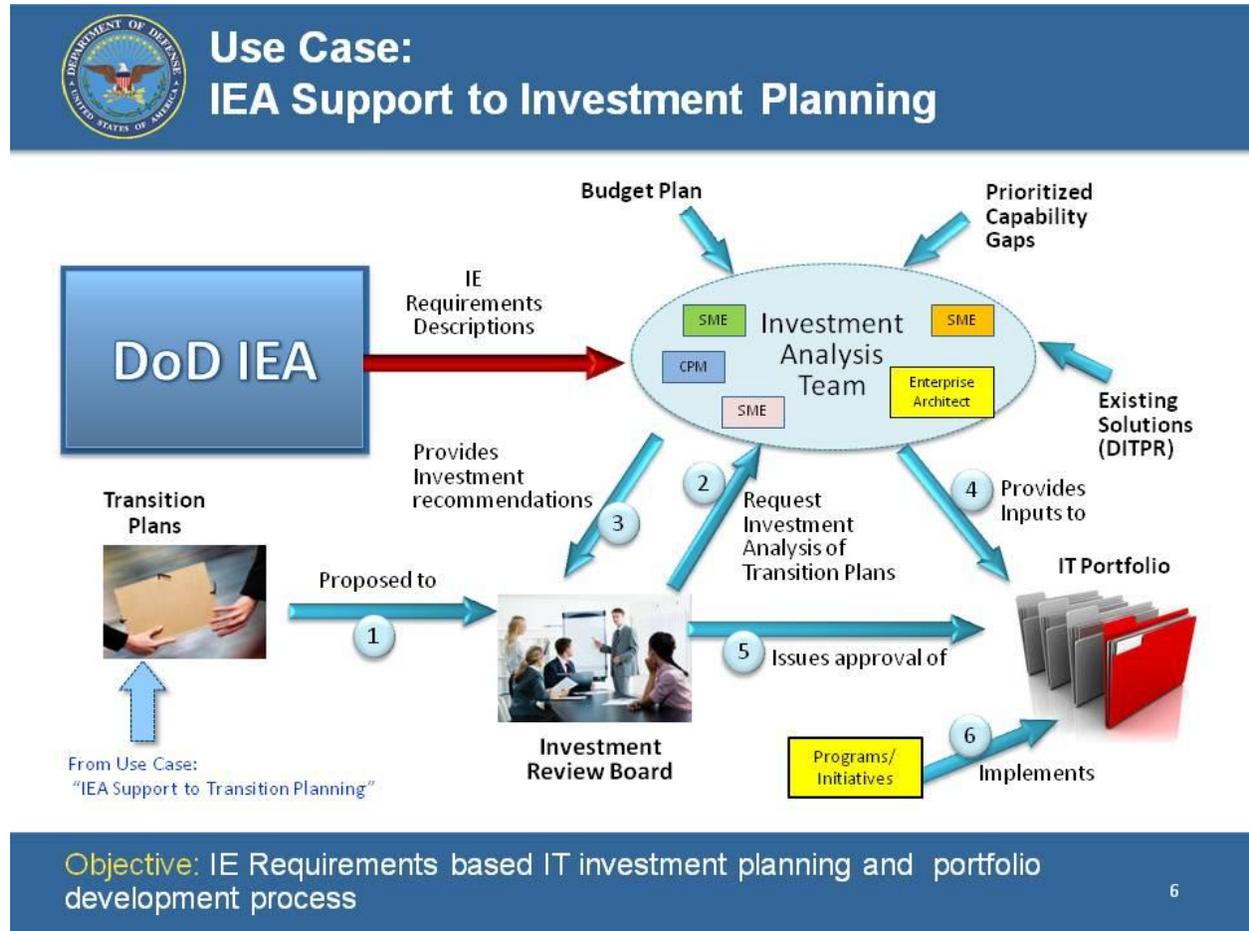
Lack of adequate Investment Plan based on the Transition Plan and constraints and criteria set by the IRB

## Minimal Guarantee

The IRB will provide sufficient guidance to implement an IT portfolio representing the proposed Transition Plan.

## Trigger

Receipt by the IRB of a proposed Transition Plan and associated Programs/Initiatives.



## Main Success Scenario

1. The developed Transition Plans (coming from the Use Case: “IEA Support to Transition Planning”) are proposed to the DoD CIO Investment Review Board (IRB).
2. The IRB request investment analysis of Transition Plans submitted to IRB.
3. An Investment Analysis Team (made up of various stakeholders; e.g., CPM; SMEs; analysts; and an enterprise architect) is convened to conduct an analysis of the Transition Plans. This team has inputs from various sources (Existing Solutions – DITPR; Prioritized Capability Gaps; Budget Plan, and the future vision for the IE contained in the

IEA amongst others. The Investment Analysis Team provides investment recommendations to the IRB.

4. The Investment Analysis Team provides the inputs to production of the IRB approved IT Portfolio. This may include changes to the original Transition Plans
5. Based on evaluation of the results of the analysis conducted by the Investment Analysis Team, the IRB issues an approval of the recommended IT Portfolio with any amendments.
6. The approved IT Portfolio provides authorization and budget to proceed on a subset of Programs and Initiatives outlined in the original Transition Plans.

### **Extensions:**

None Identified

### **Frequency:**

This Use Case will be executed for each directed IRB evaluation of a proposed Transition Plan.

### **Assumptions:**

It is assumed that the IRB charter is in place. An Investment Analysis Team has been identified and its resources are made available to the IRB during a pre-negotiated timeframe.

## **I-4 IT Program Manager Support**

### **I-4.1 Use Case: Evaluate IEA Compliance**

#### **Description**

In order to manage and use the IE effectively to deliver consistent and common services across the enterprise an EA Governance Body needs a tool to assist in evaluation of the compliance of solution architectures to meet the goals of the IE. The IEA provides the data requirements for such a tool. The governance body will receive solution architectures (to include requested reference architectures) to evaluate for compliance with the IEA. It will engage with the IE Enterprise Architects that will assist the EA Governance Body in carrying out targeted IEA Compliance evaluations. The recommendation from the assessment will be provided to the EA Governance Body; who will then make a compliance decision on the degree of compliance with the IEA.

#### **Primary Actor**

The primary Actor is EA Governance Body.

#### **Supporting Actors**

The Supporting Actor is the Enterprise (in this case IE) Architect.

### **Stakeholders and Interests**

- The DepSec Def has an interest in the outcome of this plan in that it supports the overall mission of the DOD.
- The Joint Staff has an interest in ensuring that the planned evolution of the IE fills the prioritized list of Capability gaps
- The Component Solution Developers (e.g., DISA, Army Navy, etc.) have an interest in the Strategic Plan for Enterprise-wide common capabilities that the IE will supply in order to adequately address their planning needs to support DOD Missions
- The Mission Area Solution Developers have an interest in the Approval of their plans for Mission Area Solution development and evolution to address their changing needs.
- GAO has an interest in ensuring that the EA (in this case the IEA) is being used to plan how technology will be used and acquired by the DOD to support the needs of the IE over time. Although not directly interacting in this case, it has interests in evaluating compliance with Federal guidance on use of EA to drive strategic and technologic decisions for IT.
- OMB has an interest in ensuring guidelines for reporting on how EA is being used according to Federal approaches for EA development.

### **Pre-Conditions**

In order for this Use Case to be executed, a baselined DoD IEA must be in place and a plan for how IEA architects need to support the EA Governance Body needs to be approved.

### **Post Conditions**

#### Success end condition

An architecture evaluated for IEA compliance has been provided to the EA Governance Body for their deliberation on the acceptability of the provided Solution architecture to integrate or interoperate with the IE.

#### Failure end condition:

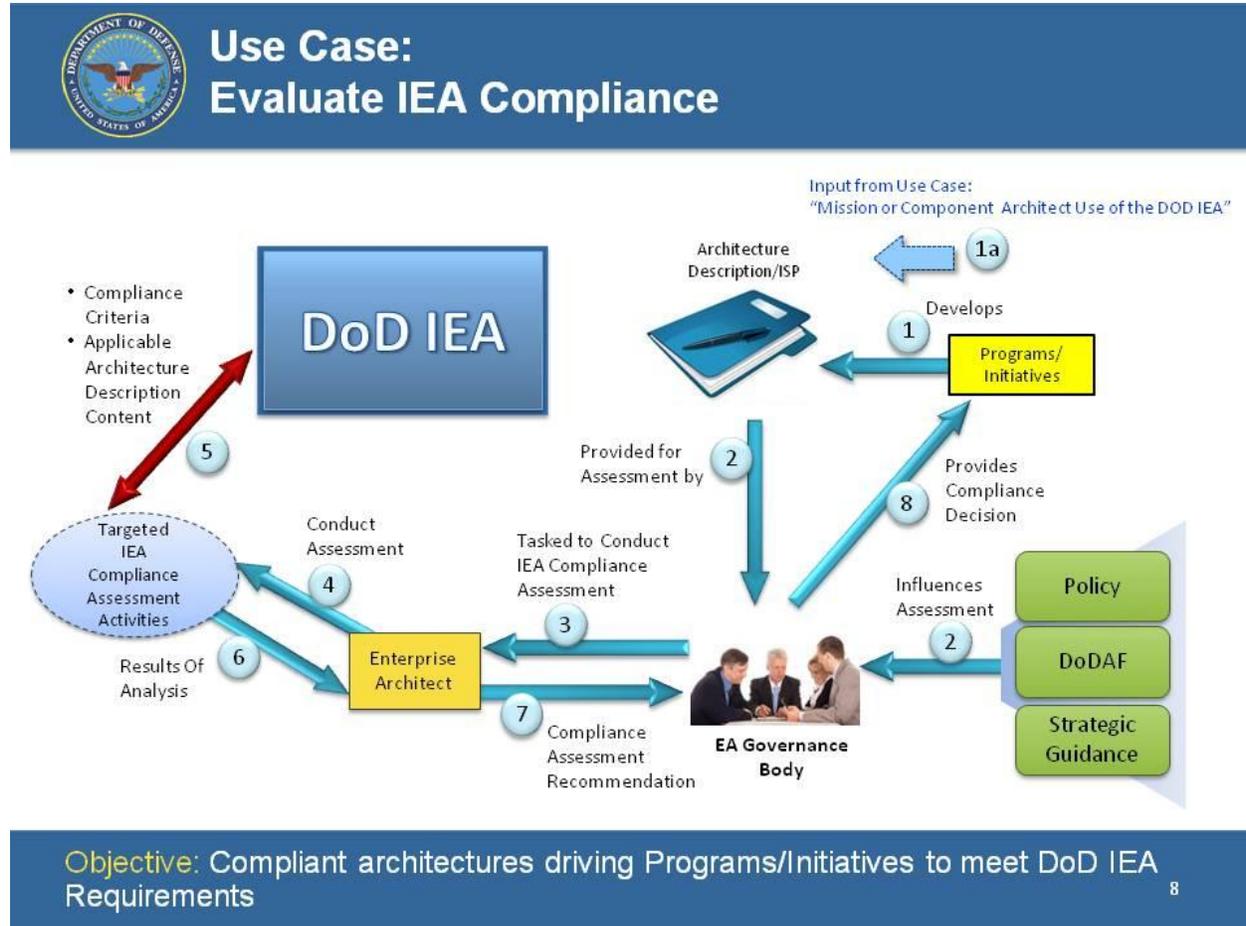
An architecture could not be evaluated for compliance with the IEA due to lack of sufficient architectural data on the submitted architecture.

#### Minimal Guarantee

An architecture can be evaluated for IEA compliance sufficiently for the EA Governance Body to make a decision on acceptability of the Solution architecture for compliance against IEA compliance criteria.

## Trigger

The submittal of a Solution architecture (most likely through a Program or Initiative) to the EA Governance Body that needs to use, interoperate with, or integrate with the IEA.



## Main Success Scenario

1. A Program or Initiative develops an architecture and/or ISP.
2. The Architecture and/or ISP is submitted for IEA Compliance Assessment to the EA Governance body. In carrying out EA governance, factors affecting oversight include: DOD Policy, DODAF compliance, and Strategic Guidance.
3. The EA Governance body will task the Enterprise Architect to conduct an IEA Compliance Assessment.
4. The Enterprise Architect will conduct the assessment using various evaluation techniques carried out through Targeted IEA Compliance Assessment Activities which depend on the type of architecture (e.g., solution architecture for a single capability or reference architecture used to combine or refine existing Capabilities defined in the IEA).

5. A set of Targeted IEA Compliance Assessment Activities will interact with the IEA using Compliance Criteria and applicable architecture description content.
6. The Enterprise Architect will review the results of the analysis.
7. The Enterprise Architect will provide the EA Governance Body with a Compliance Assessment Recommendation.
8. The EA Governance Body will review the recommendation and issue a Compliance Decision to Program/Initiative management. This will provide the Program/Initiative part of the required approvals to implement the architecture (the other part coming from the Use Case: “IEA Support to Investment Planning”).

**Extensions:**

**Step 1.a** The source of the architecture to be evaluated for compliance will come from the activities accomplished in the Use Case: “Mission Area Architect Use of the DOD IEA” or “Component Architect Use of the DOD IEA”.

**Frequency:** This Use Case will be executed for Solution Architecture or RA submitted to the EA Governance Body for evaluation of IEA Compliance.

**Assumptions:**

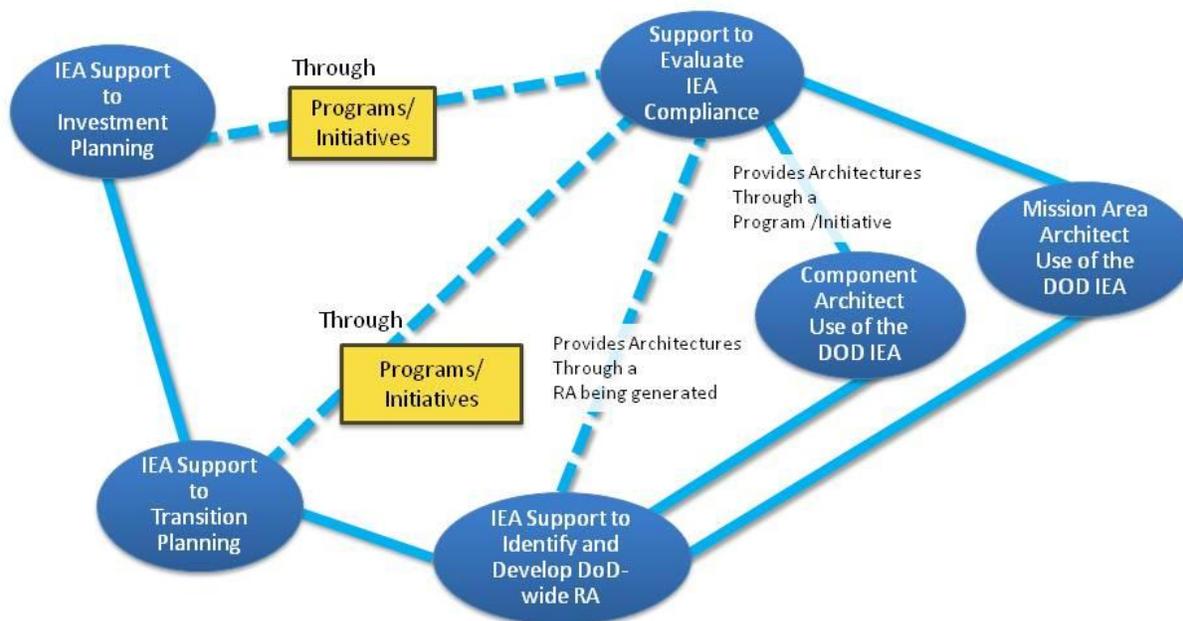
It is assumed that a chartered DoD EA governance body charter support the process described here.

## **I-5 Use Case Dependencies**

In each Use Case, linkages were shown to other Use Cases through “Extensions” in those Use Cases. It is important to note the integrating function that the IEA plays in each one of the Use Cases. As such, the IEA is central to a coherent and integrated approach to management and evolution of the IE. The following graphic, sometimes referred to as a Use Case Map, is a 20,000 foot view of these dependencies to gain a better appreciation of how governance of the IE is impacted through use and management of the IEA. The dashed lines show how Use Cases are impacted by “indirect” dependencies (e.g., through Programs/Initiatives or through RAs being generated), while the solid line connectors point to more strongly dependent Use Cases.



# Use Case Dependencies



The IEA is the glue that supports integration of some of the Key DoD CIO Governance processes evidenced by this Use Case Map